

with *A. erippus*, Cram., the two butterflies belonging to different subfamilies of the Nymphalidae.

It is interesting to note that Mr. Hudson thinks the well-known "vegetating caterpillar" of New Zealand will prove to be that of *Porina Mairi*, Buller, and not of *Hepialus virescens*, Doubl. (We cannot understand why Mr. Meyrick and Mr. Hudson should continue to place an insect so dissimilar from the European types of *Hepialus* in the same genus.) Mr. Hudson has already pointed out ('Entomologist,' xviii. p. 36) that the larva of "*H.*" *virescens* lives in the stems of trees, and never goes beneath the ground even to pupate; and in the present work he remarks:—"The real point to be discovered is the precise species of Lepidoptera this caterpillar would develop into if not attacked by the fungus; but at present no definite information has been obtained on the subject." We do not remember that very much has been published on the "Vegetating Caterpillar" of late years, and we are sorry that Mr. Hudson has no more definite information to give us respecting it; and it is rather a pity that he has not given a detailed account of the caterpillar, accompanied with one or more figures, in the present work.

The Butterfly Book, a Popular Guide to a Knowledge of the Butterflies of North America. By W. J. HOLLAND, Ph.D., D.D., LL.D., Chancellor of the Western District of Pennsylvania; Director of the Carnegie Museum, Pittsburgh, Pa.; Fellow of the Zoological and Entomological Societies of London; Member of the Entomological Society of France, &c. With 48 Plates in Color-photography, reproductions of Butterflies in the Author's collection, and many text-illustrations presenting most of the species found in the United States. New York: Doubleday & McClure Co., 1898; new edit. 1899. Roy. 8vo. Pp. xx, 382; col. pls. 48.

THIS is the first approximately complete and practical manual of the Butterflies of North America; for the older publications on the subject are necessarily both obsolete and very incomplete, and most modern books deal only with the fauna of a limited district, and are usually insufficiently illustrated, or else are so costly as to be far beyond the reach of the ordinary student. So great was the need of such a book as Dr. Holland's that many of the entomologists of the United States and Canada eagerly bought it on its first appearance, in many cases almost before it had got into the market at all; and the first edition was nearly exhausted in less than a month after publication, as if it had been a new novel by a popular author; but, we imagine, a quite unprecedented event in the history of any entomological book.

Hitherto Dr. Holland has chiefly been known to entomologists by his papers on African Lepidoptera, but he has not neglected those of his own country, and has had the good fortune to be able to form one of the most complete collections and libraries in North America relating to the subject. The present volume contains over a thousand coloured figures, a large proportion taken from the actual typical specimens, and no less than 150 species are here illustrated

in colour for the first time. With exceptions noticed below, every species of butterfly found on the continent of North America from the Gulf of Mexico to the Arctic Circle is thus illustrated. Five of the earlier plates are devoted to larvæ and pupæ.

There are also nearly 200 plain illustrations in the text, illustrating details of the earlier stages of butterflies, apparatus, neurulation, &c., and *Megathymus yuccæ*. The author adds that there are about 125 other species, chiefly Hesperiidæ, which have not been mentioned; but we may take it that these are obscure and little-known species occurring in out-of-the-way parts of the country, and that, as regards all the more accessible parts of North America, his book may be relied upon as practically complete. We regret, however, that the omitted species should not have been included in an appendix, however brief—were it only a mere list of names.

The letterpress is divided into three sections. The Introduction contains four chapters on the Life-history and Anatomy of Butterflies; the Capture, Preparation, and Preservation of Specimens; the Classification of Butterflies; and Books about North-American Butterflies.

The bulk of the book consists of descriptions (necessarily, but not unduly, brief) of the Butterflies of North America north of Mexico, thus covering the whole ground up to the boundaries of Messrs. Godman and Salvin's '*Biologia Centrali-Americana*.' The arrangement followed is *Nymphalidæ* (including *Libytheinæ*), *Lemoniidæ*, *Lyccenidæ*, *Papilionidæ* (including *Pierinæ*), and *Hesperiidæ* (including *Megathyminæ*). Scattered through the book are various digressions and quotations, poetical and other.

We hope that the author will carry out his intention of continuing his work by a book on the Moths of North America likewise, for such a work would be of still greater scientific and general value than even that before us.

Dr. Holland appears to have done his work very well, and we hope that it will also be appreciated on this side of the Atlantic, for there are surely many British and European entomologists who will be glad of an opportunity of making themselves acquainted with a fauna which presents such a remarkable resemblance to our own; though, apart from the presence of some purely American or representative forms, the proportion which the number of species of the various groups bears to each other in Europe and North America is often strangely different; for example, the *Satyrinæ*, which form the bulk of the middle-sized butterflies in Europe, are very poorly represented in North America.

MISCELLANEOUS.

Note on Ceroplastes africanus (Family Coccidæ).

By E. E. GREEN, F.E.S.

THE following is an extract from a letter I have received from Mr. E. E. Green. I think I shall best fulfil his wishes by publishing it as it is.

CHAS. O. WATERHOUSE.